

Notice of Allowability

Application No.

09/832,232

Examiner

Jean E. Lesperance

Applicant(s)

YAMAMOTO ET AL.

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed October 19, 2006.
2. ☒ The allowed claim(s) is/are 3, 5, 10-13 and 38-43, and renumbered as 1-12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____


RICHARD HJERPESUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

DETAILED ACTION

1. The amendment filed October 19, 2006 is entered and claims 3, 5, 10-13 and 38-43 are pending.

Allowable Subject Matter

2. Claims 3, 5, 10-13 and 38-43 are allowed over prior art.
3. The following is an examiner's statement of reasons for allowance: the claimed invention is directed to a method of driving an image display.

Independent claim 3 identifies a uniquely distinct feature "wherein the pulse width of a supplied voltage to the signal lines in the conduction period of the pixel switching elements when a positive polarity voltage is applied to the pixel electrodes is different from the pulse width of a supplied voltage to the signal lines in the conduction period of the pixel switching elements when a negative polarity voltage is applied to the pixel electrode, when the same tone is being displayed".

Independent claim 5 identifies a uniquely distinct feature "wherein, with respect to an image display device having the common electrode for applying a common potential to the pixels and having a plurality of scanning lines for driving the pixel switching elements, liquid crystal is displaced according to a potential difference between the common electrode and the pixel electrodes so as to carry out display, and an amplitude of a voltage supplied to the signal lines is equal to an amplitude of a voltage supplied to the common electrode".

Independent claims 10 and 11 identify a uniquely distinct feature "wherein tones are displayed by shifting phases of waveform of the signal lines and the scanning lines, and polarities of pixels in a signal line direction are inverted alternately and wherein a potential difference between the potential of the signal line and the potential of the common electrode is maximum at an end of one horizontal period".

Independent claims 12 and 13 identify a uniquely distinct feature "wherein tones are displayed by shifting phases of waveform of the signal lines and the scanning lines, and polarities of pixels in a signal line direction are inverted alternately and wherein a potential difference between the potential of the signal line and the potential of the common electrode is minimum at an end of one horizontal period".

Independent claim 38 identifies a uniquely distinct feature "a phase of the common electrode is constant with respect to a scanning signal, and tones are displayed by shifting phases of waveforms of the signal lines and the scanning lines so that the potential of the signal lines is switched between high level and low level after an elapsed time period which varies depending on the tone when the potential of the scanning line is ON".

Independent claim 39 identifies a uniquely distinct feature "wherein the waveform of the common electrode is off-phase by a certain degree with respect to the waveform of the scanning lines, and wherein tones are displayed by shifting phases of waveforms of the signal lines and the common electrode so that the potential of the signal lines is switched between high level and low level after an elapsed time period which varies depending on the tone when the potential of the scanning lines is ON".

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Independent claims 40-43 identify a uniquely distinct feature "the signal line driving section supplies a signal, which is created by shifting a phase of a voltage waveform whose polarity is inverted per one horizontal period so that the potential of the signal lines is switched between high level and low level after an elapsed time period which varies depending on the tone when the potential of the scanning lines is ON, with respect to a phase of a voltage waveform of the scanning lines, to the signal lines".

The closest art, Kikkawa and Takabatake as discussed in the previous office action, either singularly or in combination, fail to anticipate or render obvious the above limitations obvious.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:00AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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or faxed to:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance



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Date 11/3/2006



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600